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**PATENT APPLICATION**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Gerhardus HAAK et al.

Group Art Unit: 1743

Application No.: 09/914,794

Examiner: S. Siefke

Filed: September 5, 2001

Docket No.: 110510

For: SOLID PHASE EXTRACTION INSTRUMENT AND METHOD FOR SOLID PHASE EXTRACTION

**REQUEST FOR RECONSIDERATION**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In reply to the September 9, 2004 Office Action, reconsideration of the rejection is respectfully requested in light of the following remarks.

Claims 1-30 are pending in this application. Claims 8-30 are presently withdrawn from consideration

**I. Rejection under 35 U.S.C. §103(a)**

Claims 1-7 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent No. 5,512,168 ("Fetner") in view of U.S. Patent No. 5,496,741 ("Pawliszyn"). This rejection is respectfully traversed.

According to the Patent Office, the difference between claim 1 and Fetner resides in the fact that the method of Fetner does not teach or suggest raising or lowering the temperature of the cartridge to a predetermined value. Pawliszyn was alleged to teach a temperature differential between a sample and a sorbant. The Patent Office alleges that it

would have been obvious to one skilled in the art to apply the teachings of Pawliszyn to Fetner to create the method recited in claim 1. Applicants strenuously disagree with this allegation.

Fetner teaches the preparation of samples for liquid chromatography, while Pawliszyn teaches the preparation of samples for gas chromatography. As the Patent Office admits, the difference between Fetner and claim 1 resides in the fact that the method according to Fetner does not involve raising or lowering the temperature of the cartridge to a predetermined value.

In claim 1, the analyte remains in solution in the sample. The sample is led through the solid sorbent for extraction of the analyte based on liquid-solid interaction. Heating of the sorbent is shown to reduce the amount of analyte that is absorbed by the sorbent in this type of interaction. This is used to reduce the retention and accelerate both the release of matrix components and the analyte from the sorbent for better clean up and analysis respectively. See pages 25-26 of the specification.

Pawliszyn teaches the preparation of samples for gas chromatography. Pawliszyn teaches heating the sample solution to increase analyte vapor pressure in the headspace above the sample liquid. See column 6 of Pawliszyn. The sorbent, which is placed in the sample headspace, is thus exposed to increased analyte concentration resulting in higher analyte absorption. Cooling of the sorbent helps to further increase the sorption of analyte from the gaseous sample headspace by the solid sorbent.

Clearly, Fetner and Pawliszyn relate to highly different analytical techniques which have their own field of application. The equilibrium of vapor-solid as taught by Pawliszyn is completely different from the solid-liquid equilibrium taught by Fetner. Thus, one skilled in the art of solid-liquid extraction for liquid chromatography would not have applied the teaching in the field of solid-vapor extraction for gas chromatography. In particular, one of

ordinary skill in the art would not have sought to achieve an increased analyte vapor pressure in the headspace above a sample liquid in Fetner, and thus would not have sought a temperature differential as used in Pawliszyn, such having no utility in the different process of Fetner.

## **II. Rejoinder**

Applicants respectfully submit that all withdrawn claims, and at least claims 8-10, should be rejoined with claims 1-7. In particular, claims 8-10 are drawn to a solid phase extraction apparatus, while claims 1-7 are drawn to a solid phase extraction process. A product and a process that are related to each other will be considered to have unity of invention. 37 C.F.R. §1.475(b)(1-5).

Thus, Applicants respectfully request that at the very least, claims 8-10 be rejoined with claims 1-7.

## **III. Conclusion**

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-30 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,

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